APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/258,442	02/26/1999	SYUJI TAKADA	FUJI-15.894	3881

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EXAMINER
NGUYEN, PHUONGCHAU BA

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 04/26/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/258,442	TAKADA ET AL.
	Examiner	Art Unit
	Phuongchau Ba Nguyen	2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>2-25-04 RCE</u> .

2a)☐ This action is **FINAL**.　　　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>31 March 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

　　If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☒ All b)☐ Some * c)☐ None of:

　　　　1.☒ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____ .

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

　　a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)　　　　4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)　　5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .　　6) ☐ Other:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived by
> the manner in which the invention was made.

2. Claims 1, 11, 2-8 are rejected under 35 U.S.C. 103(a) as being

unpatentable by Sakurai (6,016,317) in view of Wicklund (6,185,209)

Regarding claims 1, 11, 2-6:

-As claim 1, Sakurai (6,016,317) discloses a common buffer memory control

apparatus (10) controlling a common buffer memory (11) which is used to store

message data items each of which is divided into a plurality of cells based on an

asynchronous transfer mode, said apparatus comprising:

first management means (col.5, line 61 to col.6, line 7; 103 in fig.2) for

managing whether each of a plurality of blocks into which said common buffer

memory divided is free or used;

block selecting means (next address; col.5, line 58 to col.6, line 7) for

selecting one block of said common buffer memory which is free based on

information obtained by said first management means, to use for a single data

item; and

cell writing control means (col.5, lines 52-61) for controlling a write

operation for the single message data item so that the respective cells of the

single message data item are written in the one block, selected by said block

selecting means (i.e., next address), of said common buffer memory.

Sakurai does not explicitly disclose wherein single message extracting

means extracting the respective cells written in the one block by said cell

writing control means as the single message data item from the one block when

a cell at a tail of the single message data item is received. However, in the

same field of endeavor, Wicklund discloses at step 3-5 wherein the location of

the just-written cell is indicated by the Tail-in-pointer; at step 3-8 wherein the

merge controller 132 determines whether the just-written cell is the last cell in

a packet, and the last cell of each packet has its PTI-field coded to 001-011,

the PI field is bits 2-4 in the fourth octet of the ATM header bits number 1-8,

bit 8 being transmitted first; and step 3.9, merge controller 132 sets the Tail-in-pointer for the selected pre-merge VC queue to the location of the cell just written {fig.3A}. Therefore, it would have been obvious to an artisan to apply Wicklund's teaching into Sakurai's system with the motivation being to update the VC-queue for free location to write the just-written cell.

-As claim 11, Sakurai further discloses wherein said block selecting means selects a block of said common buffer memory which is free in advance of receiving a head cell positioned at a head of the message data {Sakurai, col.6, lines 40-50}.

-As claim 2, Sakurai further discloses wherein said first management means comprises:

a free block management table (103, fig.2) having areas each of which corresponds to one of the blocks of said common buffer memory, each of the areas of said free block management table storing information indicating whether a corresponding one of the blocks of said common buffer memory is

free or used, wherein said block selecting means selects, with reference to said

free block management table, the block which is free {also, col.6, lines 43-50,

Sakurai}.

-As claim 3, Sakurai further discloses wherein said block selecting means

comprises:

free block searching means for searching said free block management

table for an area storing the information indicating that a corresponding block

is free, wherein the block corresponding to the area obtained by said free block

searching means is selected {next address; col.5, line 58 to col.6, line 7,

Sakurai}.

-As claim 4, Sakurai further discloses wherein said cell writing control means

comprises:

second management means {col.5, lines 58-61, Sakurai} for managing

addresses in each of the blocks of said common buffer memory; and

address specifying means {col.5, line 65 to col.6, line 1, Sakurai} for

specifying, based on information obtained by said second management means,

an address in the block selected by said block selecting means every time one

of cells of the single message data item is received, so that the cells of the

single message data item are written at addresses specified by said address

specifying means.

-As claim 5, Sakurai further discloses wherein second management means

comprises:

a table (101, fig.2) having areas each of which corresponds to one of the

blocks of said common buffer memory, each of the areas storing an address at

which the next cell should be written, the address in each of the areas of said

table being updated every time a cell is written in a corresponding block of said

common buffer memory {also, col.6, lines 18-25, 43-49, Sakurai}.

-As claim 6, Sakurai further discloses wherein a number of blocks of said

common buffer memory and a length of each of the blocks are set at values

corresponding to data supplied from an external input device (input lines L14-

L16) {col.5, lines 52-58, Sakurai}.

Regarding claims 7-8:

Sakurai does not disclose wherein a length of each of the blocks of said

common buffer memory is controlled base on information about an amount of

information of the message data extracted from a cell {claim 7}; wherein if the

amount of information of the message data actually written in the block is less

than the controlled length of the block, a remaining area of the block is opened

so as to be used in the following message communication {claim 8}. However,

in the same field of endeavor, Wicklund (6,185,209) discloses in ATM switching

device for setting head-in-pointer and tail-in-pointer for the cell just written

{fig.3, steps 3-7, 3-9} thus determining the length of each of the blocks of said

common buffer memory is controlled based on information about an amount of

information of the message data extracted from a cell (claim 7); Wicklund

further discloses that if the amount of information of the message data actually

written in the block is less than the controlled length of the block (i.e., Head-in,

wherein it is not yet the last of a packet), a remaining area of the block is

opened so as to be used in following message communication {col.5, lines 30-

54} (claim 8). Therefore, it would have been obvious to an artisan to apply

Wicklund's teaching into Sakurai's teaching and the motivation being to

determine length of merged or pre-merged VC queues by using the control

words {col.4, lines 22-24}.

3.   Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Sakurai in view of Cotton (5,535,197)

        Sakurai does not explicitly disclose the claimed feature. However, in the

same field of endeavor, Cotton (5,535,197) discloses in figure 6 wherein the

common buffer memory control apparatus (cell manager 13) further comprising

user management means (buffer memory allocation-linked list) for managing

the blocks of said common buffer memory so that a block storing a head cell

positioned at a head (640) of the message data corresponds to user

identification information (the assigned buffer address which the head pointed

the cell into) extracted from the head cell, wherein said cell writing control

means controls, based on information obtained by said user management

means, the write operation so that each of cells positioned in a mid-portion

(not at the head of linked list) of the message data is written in the block

corresponding to user identification information (assigned buffer address)

extracted from said each of the cells {col.13, lines 4-45}. Therefore, it would

have been obvious to an artisan to apply Cotton's teaching into Sakurai's

teaching and the motivation being to maintain a current list of the unassigned

buffer address available for assignment to incoming cells {col.12, lines 65-67,

Cotton}.

Response to Arguments

4.   Applicant's arguments filed 3-31-03 have been fully considered but they

are not persuasive.

A/. Applicant argued in page 6 of remarks that Sakurai, Wicklund or

Cotton, either alone or in combination does not teach the single message

extracting means.

In reply, applicant is directed to column 5, lines 48-51 in Wicklund, also

see figure 3A, at step 3-5 wherein the location of the just written cell is

indicated by the Tail in pointer, at step 3-8 wherein the merge controller 132

determines whether the just-written cell is the last cell in the packet by

reading/extracting the PTI-field of the last cell of the packet; at step 3-9 when

the Tail in pointer is set for the cell just written, thus for updating the cell

counter Count_in of the cell just written for determining whether the VC-queue

is an available to write the just-written cell.

B/. Applicant argued that Sakurai and Wicklund fails to teach that the

single data message item be accumulated and written to one selected block.

In response to applicant's argument that the references fail to show

certain features of applicant's invention, it is noted that the features upon

which applicant relies (i.e., "the single data message item be accumulated and

written to one selected block", remark, page 7, lines 14-15) are not recited in

the rejected claim(s). Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims.

See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, Wicklund's teaching was being combined to Sakurai's system

wherein the received cells were being multiplexed before input to buffer

memory (fig.2, Sakurai), therefore, the cell in memory buffer is a multiplexed

cell which comprises a plurality of cells, thus, by retrieving the tail of packet

(last cell) in the just-written location to locate the next free location in queue.

Therefore, as combination of Wicklund and Sakurai, the multiplexed cell (or the

respective cell therein) would be stored in the next free-location in the buffer
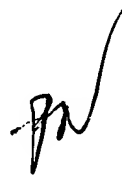
memory (fig.2, Sakurai).

5.   The prior art made of record and not relied upon is considered pertinent

to applicant's disclosure.

Keller (5,463,622); Murakami (5,463,622); Nishihara (5,742,600)

6.   Any inquiry concerning this communication or earlier communications

from the examiner should be directed to Phuongchau Ba Nguyen whose

telephone number is 703-305-0093. The examiner can normally be reached

on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Huy Vu can be reached on 703-308-6602. The fax

phone numbers for the organization where this application or proceeding is

assigned are (703) 872-9306 for regular communications and (703) 872-9306

for After Final communications.

Any inquiry of a general nature or relating to the status of this application

or proceeding should be directed to the receptionist whose telephone number

is 703-305-4700.

Phuongchau Ba Nguyen
Examiner
Art Unit 2665

April 20, 2004

DUC HO
PRIMARY EXAMINER

04-22-04